About the CAHPS® Health Information Technology Item Set

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Documents Available for the CAHPS Clinician & Group Survey

This document is part of a comprehensive set of instructional materials that address implementing the Clinician & Group Survey, analyzing the data, and reporting the results. All documents are available on the Agency for Healthcare Research and Quality’s Web site. For assistance in accessing these documents, please contact the CAHPS Help Line at 800-492-9261 or cahps1@westat.com.

For descriptions of these documents, refer to What's Available for the CAHPS Clinician & Group Survey 3.0.

**Questionnaires**

- **CAHPS Clinician & Group Survey:** Overview of the Questionnaires
- **Clinician & Group Survey 3.0** (Adult and Child, English and Spanish)

**Supplemental Items**

- **Supplemental Items for the Clinician & Group Survey 3.0**

Some supplemental items for this survey are intended to be administered together. Learn more about these item sets:

- Patient-Centered Medical Home
- Patient Narrative Elicitation Protocol
- Health Literacy
- Health Information Technology

**Survey Administration Guidelines**

- **Preparing a Questionnaire Using the CAHPS Clinician & Group Survey**
- **Fielding the CAHPS Clinician & Group Survey**
- **Sample Notification Letters and Emails for the CAHPS Clinician & Group Survey**
- **Sample Telephone Script for the CAHPS Clinician & Group Survey**

**Reporting Measures and Guidelines**

- **Patient Experience Measures from the CAHPS Clinician & Group Survey**

**Available for all CAHPS surveys**

- **Analyzing CAHPS Survey Data:** Free programs for analyzing the data, guidance on preparing survey results for analysis, and instructions for using the CAHPS Analysis Program.
- **Translating Surveys and Other Materials:** Guidelines for translating surveys and selecting translators and translation reviewers.
Introduction

The past decade has seen many local, regional, and national initiatives to accelerate the adoption of health information technology (IT) in clinicians’ offices. Health IT is a broad term that captures multiple technologies and functions. The various uses of health IT can include the following:

- Providers’ use of computers or handheld devices during a patient visit to—
  - access and complete information in an electronic medical record (EMR)
  - access medical information, such as prescribing guidelines
  - show medical record information to the patient (e.g., x-ray images, growth curves)
  - transmit a prescription for medicine

- Patients’ use of the Internet, personal health records (PHRs), or portals to—
  - make appointments
  - communicate and ask questions via secure messaging
  - view information from the EMR such as visit notes, prescription lists, and laboratory or other test results
  - request prescription refills

While these technological applications have the potential to improve some aspects of patients’ experiences, such as communication with providers and access to care, some studies have reported negative outcomes for patients, such as a depersonalization of the provider visit.  

Assessing the patients’ perspective through a survey offers a way to identify positive and negative effects and to ensure that practice administrators have a balanced view of the impact of new technologies. To that end, users of the CAHPS Clinician & Group Survey can incorporate the CAHPS Health Information Technology Item Set, a set of supplemental items that ask patients about their experiences with providers’ use of health IT. This document discusses the topics covered by this item set and ways to use the survey results to inform health care consumers and other stakeholders and improve the quality of care.

What’s in the CAHPS Health IT Item Set?

The Health IT Item Set consists of 21 supplemental items designed for use with the CAHPS Clinician & Group Survey. In developing these items, the CAHPS Consortium focused on aspects of the use of health IT for which patients are the best

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or only source of information. These items were designed to assess three aspects of health IT:

- Provider’s use of computer or handheld device
- Email access and helpfulness
- Helpfulness of Web site

Survey users who are interested in only one or two of these functions may choose a subset of health IT items for their survey.

Appendix A lists the Health IT items and indicates which items address specific health IT functions.

Administering the CAHPS Health IT Item Set

The Health IT Item Set is designed to be administered as part of a CAHPS Clinician & Group Survey, not on its own. Users are encouraged to follow the administration guidelines for the Clinician & Group Survey: Fielding the CAHPS Clinician & Group Survey. Please note that these items should be asked of all patients rather than a subset (e.g., only those patients that access a patient portal).

Using Data From Responses to the CAHPS Health IT Item Set

Organizations that field the CAHPS Clinician & Group Survey may want to use data from these questions to inform consumers, provide feedback to providers, and spur improvements in patients’ experiences with care.

Recommended Measures

In addition to the patient experience measures from the Clinician & Group Survey, users can calculate and report the measures from this item set at the level of the medical group, physician practice, or individual clinician. The Health IT Item Set produces four patient experience measures: three composite measures and one single-item measure (Appendix B):

- **Getting Timely Appointments Through E-mail or Website** (1 item)
  - Patient got an appointment using e-mail or website as soon as needed

- **Getting Timely Answers to Medical Questions by E-mail** (2 items)
  - Patient got an answer to an e-mailed medical question as soon as needed
  - All of the questions in patient’s e-mail were answered

- **Helpfulness of Provider’s Use of Computers During a Visit** (2 items)
  - Provider’s use of computer or handheld device was helpful to patient

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2 All measures are listed in Patient Experience Measures from the CAHPS Clinician & Group Survey.
- Provider’s use of computer or handheld device made it harder or easier to talk with him or her

**Helpfulness of Provider’s Website in Giving You Information About Your Care and Tests (4 items)**
- Blood tests, x-rays, or other test results were easy to find on website
- Blood tests, x-rays, or other test results were put on website as soon as needed
- Blood tests, x-rays, or other test results were presented in a way that was easy to understand
- Visit notes were easy to understand

**Providing Feedback**
Health care organizations using this item set can use the measures from this item set for benchmarking and reporting at the group or practice site level. For example, a health system may compare performance on the Health IT measures across medical groups, or a medical group may compare performance across practice sites.

At the level of individual providers, health care organizations may want to provide item-level feedback in order to help providers better understand the behaviors and actions that can affect their patients’ experiences, such as
- Barriers to making appointments using health IT
- Responsiveness to questions submitted electronically
- Providers’ use of computers or handheld devices during the clinical encounter
- Providing information (test results or visit notes) using health IT

**Improving Quality**
This item set is intended to collect data that health care providers can use to improve care by:
- Identifying specific topic areas for quality improvement
- Recognizing particular behaviors or actions that inhibit the effective use of health IT
- Measuring the effect of behaviors that promote the effective use of health IT

Providers can identify their strengths and weaknesses by topic area as well as for individual items by analyzing differences in responses. Responses can also be segmented for further analyses to provide more detailed information. Subgroups of possible interest could be identified through variables such as demographics, level of utilization, and length of relationship with provider.

Having identified opportunities for improvement and embarked on quality improvement activities, the providers can then field the items again to evaluate the success of improvement activities.
The CAHPS Ambulatory Care Improvement Guide offers insights into quantitative and qualitative analyses useful for identifying improvement opportunities as well as strategies for improving patients’ experiences.

Choosing a Subset of CAHPS Health IT Items

Some survey users are not able to include all of the CAHPS Health IT items in their survey. To figure out which items to use, you will want to first consider how you intend to use the survey results.

Are you planning to report composite measure(s)?

If you intend to report a specific composite, make sure you include all the items included in the composite measure as well as any screener items that are associated with those items. Composite measures can only be calculated if all of the items in the measure are included.

Do you have a specific target area for QI?

The CAHPS Health IT items can help you explore performance issues raised by the core survey measures and items or probe specific areas that are a focus for your organization. For example, if you want to better understand patients’ experiences with contacting the medical practice, you can include items about using email that would complement the core items that ask about using the phone.

As noted above, users of the Health IT Item Set can also choose to focus on a specific functional area: the provider’s use of computer or handheld device, email access and helpfulness, and helpfulness of the Web site. Please refer to Appendix A to see which items address each of these functional areas.

Development of the CAHPS Health IT Item Set

The Agency for Healthcare Research and Quality (AHRQ) sponsored the development of the Health IT Item Set through the CAHPS Consortium. The development process included the following steps:

- **Stakeholder meetings.** In June 2006, AHRQ hosted a meeting with health IT and CAHPS survey experts as well as stakeholders representing health care organizations and consumers. This group discussed the use of health IT by physician practices, the aspects of patient care likely to be affected by health IT, the areas that consumers would be best suited to comment on, and sources of related information, including potential items.

- **Literature review.** The CAHPS team completed a literature review of health IT/provider/patient interactions.

- **Focus groups.** The CAHPS team conducted focus groups with health IT users. The goals of the focus group sessions were to explore
  - What health care functions are important to patients
  - How patients view health IT’s role in facilitating those functions
  - What patients believe they are able to report on regarding health IT
- What patients regard as the most important roles for health IT in a physician practice

- **Item inventory.** Based on the stakeholder meeting, literature review, and focus groups, the grantees developed an inventory of items and sorted them into content domains.

- **Site interviews.** The team conducted in-depth interviews with health plan representatives and providers that use health IT. The interviews explored issues around electronic and PHR architecture, functions most frequently used by providers and patients, and percentage of patients registered to use PHR systems.

- **Cognitive testing.** Draft items were cognitively tested with consumers to ensure that they can accurately understand and interpret the questions and response options. After two rounds of cognitive testing, the team incorporated the findings into an item set that was used for field testing.

- **Technical expert panel.** Toward the end of the item development process, the team convened a Web-based meeting of a technical expert panel of 20 health informatics and policy leaders who provided advice on item set domains and the pilot testing process.

- **Field testing.** The items were tested in three organizations in diverse geographic settings.

- **Psychometric analysis.** Extensive psychometric analyses were conducted to understand how the items functioned in the field test. The results led to the finalization of the item set and composite measures.

- **Composite label testing.** The composite measure labels were tested with consumers to ensure that consumers understood the labels correctly.

- **Public release.** In 2011, AHRQ released the CAHPS Health Information Technology Item Set for use with the original CAHPS Clinician & Group Survey. These supplemental items were revised slightly in 2012 and 2013 to align the questions and placement instructions with the 2.0 version of the Clinician & Group Surveys and related supplemental items. In 2017, the items and placement instructions were modified to fit with the 3.0 version of the Clinician & Group Survey.

The CAHPS Consortium would like to acknowledge the following organizations for their support of the development of this item set: Beth Israel Deaconess Medical Center, Group Health Cooperative, and Kaiser Permanente Southern California.

**Related Resources**

## Appendix A. Items in the Health IT Item Set

The table below lists the questions included in the 3.0 version of the CAHPS Health Information Technology Item Set. Please visit the AHRQ Web site to review and download the full item wording and placement instructions.

This table also indicates the specific health IT function that is assessed in each item. This categorization can be used to select appropriate items for a survey. For example, if a practice communicates via e-mail with patients but does not have a Web site or patient portal and providers do not use computers or handheld devices during patient visits, then the items indicated in the “E-mail” column would be best suited.

<table>
<thead>
<tr>
<th>Item</th>
<th>Short Item Title</th>
<th>E-mail</th>
<th>Web site</th>
<th>Provider Use of Computer</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIT1.</td>
<td>Patient can make appointment by e-mail or website</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>HIT2.</td>
<td>Patient used e-mail or a website to make an appointment</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>HIT3.</td>
<td>Patient got an appointment using e-mail or website as soon as needed</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>HIT4.</td>
<td>Patient emailed provider’s office with a medical question</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIT5.</td>
<td>Patient got an answer to an e-mailed medical question as soon as needed</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIT6.</td>
<td>All of the questions in patient’s e-mail were answered</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIT7.</td>
<td>Provider used a computer or handheld device during visit</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>HIT8.</td>
<td>Provider used a computer or handheld device to look up test results or other information about patient</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>HIT9.</td>
<td>Provider used a computer or handheld device to show information to patient</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>HIT10.</td>
<td>Provider used a computer or handheld device to order prescription medicines for patient</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>HIT11.</td>
<td>Provider’s use of computer or handheld device was helpful to patient</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>HIT12.</td>
<td>Provider’s use of computer or handheld device made it harder or easier to talk with him or her</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Item</td>
<td>Short Item Title</td>
<td>E-mail</td>
<td>Web site</td>
<td>Provider Use of Computer</td>
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<td>--------------------------</td>
</tr>
<tr>
<td>HIT13.</td>
<td>Provider’s office put blood tests, x-rays, or other test results on a website for patient to see</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>HIT14.</td>
<td>Patient looked for blood tests, x-rays, or other test results on the website</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>HIT15.</td>
<td>Blood tests, x-rays, or other test results were easy to find on website</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>HIT16.</td>
<td>Blood tests, x-rays, or other test results were put on website as soon as needed</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>HIT17.</td>
<td>Blood tests, x-rays, or other test results were presented in a way that was easy to understand</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>HIT18.</td>
<td>Provider’s office offered patient visit notes</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>HIT19.</td>
<td>How provider offered visit notes</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>HIT20.</td>
<td>Patient looked at visit notes from provider’s office</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>HIT21.</td>
<td>Visit notes were easy to understand</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>
Appendix B. Measures from the Health IT Item Set

The following tables list the measures available from the CAHPS Health IT Item Set.

### Getting Timely Appointments Through E-mail or Website

| HIT3 | Patient got an appointment using e-mail or website as soon as needed | Response Options  
|------|---------------------------------------------------------------------|-------------------|
|      |                                                                     | • Never  
|      |                                                                     | • Sometimes  
|      |                                                                     | • Usually  
|      |                                                                     | • Always  |

### Getting Timely Answers to Medical Questions by E-Mail

| HIT5 | Patient got an answer to an e-mailed medical question as soon as needed | Response Options  
|------|-----------------------------------------------------------------------|-------------------|
| HIT6 | All of the questions in patient’s e-mail were answered                 | • Never  
|      |                                                                      | • Sometimes  
|      |                                                                      | • Usually  
|      |                                                                      | • Always  |

### Helpfulness of Provider’s Use of Computers During a Visit

| HIT11 | Provider’s use of computer or handheld device was helpful to patient | Response Options  
|-------|---------------------------------------------------------------------|-------------------|
| HIT12 | Provider’s use of computer or handheld device made it harder or easier to talk with him or her | Response Options  
|       |                                                                     | • Harder  
|       |                                                                     | • Not harder or easier  
|       |                                                                     | • Easier  |

### Helpfulness of Provider’s Website in Giving You Information About Your Care and Tests

| HIT15 | Blood tests, x-rays, or other test results were easy to find on website | Response Options  
|-------|------------------------------------------------------------------------|-------------------|
| HIT16 | Blood tests, x-rays, or other test results were put on website as soon as needed | Response Options  
| HIT17 | Blood tests, x-rays, or other test results were presented in a way that was easy to understand | Response Options  
| HIT21 | Visit notes were easy to understand                                    | • Never  
|       |                                                                      | • Sometimes  
|       |                                                                      | • Usually  
|       |                                                                      | • Always  |